



Conferences

Announcing:
The Third Annual F&S Conference on

Assessment & Forecast of Computer Graphics



FROST & SULLIVAN, INC.
106 Fulton Street
New York, N.Y. 10038
Telephone: 01-486-8377/9
Telex: 261671

104-112 Marylebone Lane
London W1M 5FU
Telephone: 01-486-8377/9
Telex: 261671

6 Frankfurt am Main
Justinianstrasse 22
West Germany
Telephone: 59 01 36
Telex: 414561

Paris, France
Telephone: 079-10-10

Madrid, Spain
Telephone: 402-47-44

IRM Inc., Rosei Building
4, 1 Chome Higashi Azabu
Minato-ku, Tokyo
Telephone: 5831161
Telex: 242-2588

Frost & Sullivan, organized in 1960,
publishes market research reports,
produces market research conferences
and a variety of business educational
seminars, and markets to industry a
number of other business services,
including company and industry reports
originally prepared by investment
bankers for institutional investors.
Frost & Sullivan products analyze and
forecast segments of these industries:

| | |
|---|--|
| Chemicals, plastics & paper | Environment |
| Communications & electronics | Financial & business services |
| Consumer, leisure, retail & building | Food, beverages & associated equipment |
| Data processing & office machines | Health |
| Defense, aerospace & security | Instrumentation & controls |
| Energy & power | Machinery & materials Transportation |

Frost & Sullivan, Inc. is a public corporation
(NASDAQ "FRSL")

Mar 81

ROUTE TO:

1. _____
2. _____
3. _____
4. _____

Thursday, April 30 — Friday, May 1, 1981
The Saddlebrook/Marriott Hotel
New Jersey

Dear Sir or Madam:

By the end of 1981, an estimated 200,000 computer graphic terminals—soft and hard copy units—will be installed worldwide at more than 35,000 locations. The market for computer graphics equipment, software and services will continue to grow at a 20-25% annual compounded rate over the next 5 years, with some areas expected to grow more than 60%, creating opportunities, challenges and pitfalls for both **suppliers** and **users**.

Graphics hardware costs are plunging, and applications becoming more sophisticated and far reaching, thus causing the software to be of greater importance and consideration. Turnkey systems addressing business and CAD/CAM applications are now available.

This conference, sponsored by Frost & Sullivan, will assess the present state of computer graphics and will evaluate hardware, software, systems, services and applications. The impact of new technologies on computer graphics will be forecasted. The role of graphics in today's business, engineering, and manufacturing environment will be considered. Factors affecting market growth will be analyzed. The attitudes of the venture capital community toward computer graphics will be discussed.

A distinguished panel of speakers from industry will present their views. The moderator is Carl Machover, an internationally recognized computer graphics expert. In addition to the formal presentations, another Conference objective is to provide a forum for the speakers and the users and suppliers in the audience to exchange views.

WHO SHOULD ATTEND

- Marketing and planning personnel with vendors who supply computer graphics hardware, software and computer services.
- Users involved in systems analysis and design; engineering design, analysis and planning; buying of computer graphics equipment; financial management and analysis; data processing; management information systems.
- Financial analysts responsible for evaluating investment opportunities in computer graphics.

Sincerely,

FROST & SULLIVAN, INC.

Henry M. Berler
Henry M. Berler
Vice President, Research

hmb/h

©1981 FROST & SULLIVAN, INC.

SPEAKERS' BIOGRAPHIES

Carl Machover (Conference Director) is head of Machover Associates Corporation, consultants who provide a broad range of management, engineering, marketing and financial services to computer graphics users and suppliers. He is on the Board of Directors of CDVS and the Editorial Review Board of the "Computer Display Review" as well as "Computer & Graphics." He was formerly the Executive Vice-President of Information Displays, Inc. He received his degree in Electrical Engineering from Rensselaer Polytechnical Institute. He is a fellow of the Society for Information Display, Association for Computing Machinery, the Institute of Electrical and Electronics Engineers, the American Institute of Design and Drafting, and the National Society of Professional Engineers. He is project director for Frost & Sullivan Computer Graphics reports.

Ralph Linsalata is President of Lexidata Corporation, a manufacturer of high resolution raster display systems. He was formerly Vice President of Applicon, Inc. Mr. Linsalata has also worked for IBM and GE. He received his degree in Electrical Engineering from Case Institute of Technology and his MBA from Harvard University.

Peter J. Shaw is Vice President of Megatek Corporation, a leading manufacturer of refresh computer graphics systems. He was formerly Marketing Manager for Talos Systems. He received his BA in Engineering from CCNY and an MBA from the University of Connecticut. In 1975, he received a top marketing communications award from the American Marketing Association for his programs at Talos Systems.

Jon Reed is the Division Manager for Group Information Display for Tektronix. Mr. Reed was previously a research scientist for Honeywell. Besides being on the engineering end of computers, he has also been on the managing side. He received his MBA from Portland State University.

Dr. Peter Brody is President of Panelvision. He was born in Budapest, Hungary. Dr. Brody received his PhD from London University. After teaching college, he joined Westinghouse Laboratories, where he built up a department dedicated to application of thin film technology to electronics, solid state displays, and solar cells. He is a member of the American Physical Society, the IEEE and the Society for Information Display. In 1976, Dr. Brody received the Special Recognition Award from the Society for Information Display.

Gary Long is Vice President and General Manager of Talos Systems of the Calcomp Group of Sanders Corporation. He has been with Talos for nine years, starting as Vice President of manufacturing. He has also been Vice President of Operations. He received his BS in Mechanical Engineering from the University of Iowa.

Gary Hughes is President of Benson, Inc. He has been in the computer business for over 20 years. Mr. Hughes has held positions both in the U.S. and Canada with such firms as IBM, Memorex and Service Bureau Industry.

James Dunn is President and Founder of Dunn Instruments, Inc., based in San Francisco. His company developed the first computer raster scan film recorders for medical implementation and has patented techniques for color output in computer graphics.

E. Joseph Zemke is Executive Vice President of Field Operations for Autotrol Technology. He joined Autotrol in November of 1980. Previously, Mr. Zemke was Corporate Director of Marketing for IBM. He was with IBM for 18 years, during which time he held posts in sales and management in data processing. In 1976, he received an Alfred P. Sloane Fellowship at MIT, where he earned his MS.

Paul Huber is President and Director of Summagraphics, the leading manufacturer of Data Tablets, Digitizers and small CAD systems. Prior to joining Summagraphics, he was the President of Mergenthaler Linotype Company. He holds a BS in Electrical Engineering and an MBA from Harvard University.

A.M. Christman is General Manager for the Industry Marketing/Manufacturing Division of Control Data Corporation. In this role, he has been primarily responsible for implementing CAD/CAM systems. He holds an MS in Engineering from the University of Michigan. He was formerly head of product management for computer systems at Control Data Corp.

Paul Kirby is the Future Products Manager of Hewlett Packard. He holds a BS in Electrical Engineering from the University of California at Berkeley and an MBA from Harvard University.

Phil Cooper is the Founder and President of Computer Pictures, Inc. He was formerly an Executive of BBDO Advertising Agency in New York. Mr. Cooper attended Boston College and Syracuse University. He earned his graduate degree from Boston College.

Perry E. Jeffe is President of Jeffe Information Systems, Inc. His clients include GE, RCA, Union Carbide and others. Prior to forming JIS, he was Director of Product Development for McGraw-Hill Information Systems Company. He holds a degree in physics from Rensselaer Polytechnical Institute and a degree in Industrial Design from Pratt Institute. Mr. Jeffe is the Director of the Pratt Center for Computer Graphics and Design.

Bruce Anderson is a General Partner in the company of Welsh, Carson, Anderson and Stowe, which concentrates on three market segments: information processing, medical instrumentation, and disposables. Prior to founding the firm, Mr. Anderson was with Automatic Data Processing, where he was a member of the Board of Directors and Executive Vice President.

CONFERENCE PROGRAM

April 30, 1981

- 8:00-9:00 **Registration**
- 9:00-9:10 **Welcome Address**
Henry M. Berler, Vice President of Research
Frost & Sullivan, Inc.
- 9:10-9:45 **Introduction and Overview of Computer Graphics Market**
Carl Machover, President
Machover Associates Corporation
- 9:45-10:30 **Raster Graphics**
Advantages of digital raster display technology for computer graphic systems.
New applications will be discussed.
Ralph Linsalata, President
Lexidata
- 10:30-10:45 **Coffee**
- 10:45-11:30 **Future of Vector Graphics**
Current and future state of vector graphics, including refresh
stroke and raster graphics. "Graphics Engine" concept will be explained.
P.J. Shaw, Vice President of Marketing
Megatek, Inc.
- 11:30-12:15 **DVST Displays**
Advantages and disadvantages of DVST to the technology of storage
tubes, with attention to high resolution application. DVST
in relation to market and technology.
Jon Reed, Division Manager for Group Information Display
Tektronix
- 12:15-1:30 **Lunch**
- 1:30-2:15 **Solid State Displays**
Discussion and illustration of Dr. Brody's work on large scale
integration of solid state displays by means of the thin film transistor.
Market predictions for thin film transistors will be given.
There will be a demonstration of an operating flat television panel.
Dr. Peter Brody, President
Panelvision
- 2:15-3:00 **Digitizer Development and Trends**
A review of the digitizer marketplace. Comments on current
techniques and examination of trends and future developments.
Gary Long, Vice President and General Manager
Talos Systems, Inc.
- 3:00-3:15 **Coffee**
- 3:15-4:00 **Plotters**
Discussion of state of the art in graphics hardcopy output
devices, including pen plotter and electro-static technologies.
Discussion of future trends in plotting devices.
Gary Hughes, President
Benson, Inc.
- 4:00-4:45 **Film-Based Computer Graphics**
Update on state of the art for film recorder devices,
focusing on applications in image analysis, business graphics
and animation.
James Dunn, President
Dunn Instruments
- 5:00-5:45 **Cocktail Reception**

May 1, 1981

- 9:00-9:45 **Large CAD/CAM Systems**
Autotrol's perspective of the CAD/CAM system marketplace.
E. Joseph Zemke, Executive Vice President, Field Operations
Autotrol Technology
- 9:45-10:30 **Low Cost CAD/CAM Systems**
Assessment of the trends and capabilities of small turnkey systems as they apply to CAD/CAM for the small company and the division or department of the larger company which cannot afford a larger system.
Paul Huber, President,
Summagraphics
- 10:30-10:45 **Coffee**
- 10:45-11:30 **Options CAD/CAM**
Overview of CAD/CAM. Will examine the various options to implementation including turnkey, main frame and time-sharing.
A. M. Christman, General Manager
Industry Marketing/Manufacturing Division
Control Data Corporation
- 11:30-12:15 **Graphics Desktop Computers**
Evolution and trends in desktop computers. Projections for the future of desktop computers. Industry trends.
Paul Kirby, Future Products Manager
Hewlett Packard
- 12:15-1:30 **Lunch**
- 1:30-2:15 **Business Graphics**
Utility of Computer Graphics for management applications. Approaches to acquiring a system for your company.
Phil Cooper, President
Computer Pictures Corporation
- 2:15-3:00 **Computer Graphics and the Graphic Arts**
Impact of Computer Graphics on printing, publishing, communication and entertainment markets. Consideration of effects on creative, editorial, composition and publication functions.
Perry Jeffe, President
Jeffe Information Systems
- 3:00-3:15 **Coffee**
- 3:15-4:00 **Venture Capitalist and Computer Graphics**
How to make the decision between hardware and software/turnkey systems or systems integrators. The people equation in business computer graphics—How to find them.
Can existing high "PE" levels continue
Bruce Anderson, General Partner
Welsh, Carson, Anderson and Stowe
- 4:00-4:45 **Future Markets, Prospects and Wrap-Up**
Carl Machover, President
Machover Associates



ORDER REGISTRATION FORM

Date: _____

Frost & Sullivan
106 Fulton Street
New York, New York 10038

Reservations For:

The Third Annual F&S Conference on
Assessment and Forecast of Computer Graphics

Attention: Robert Sanzo

April 30, May 1, 1981
The Saddlebrook/Marriott Hotel, New Jersey

Gentlemen:

Please make the following reservations to your Conference **Assessment and Forecast of Computer Graphics**. I understand that the fee of \$675 includes attendance at all sessions of the conference, a personal copy of the visuals, two luncheons and a cocktail reception.

- ☐ Enclosed is my check for \$ _____. (\$675 for each attendee. Additional attendees from the same company will receive a 20% discount, i.e., will pay \$540.)
- ☐ Please bill me for \$ _____.

SIGNATURE _____ NAME & TITLE: _____

COMPANY: _____ DIVISION: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____ PHONE #: _____

SIGNATURE _____ NAME & TITLE: _____

COMPANY: _____ DIVISION: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____ PHONE #: _____

SIGNATURE _____ NAME & TITLE: _____

COMPANY: _____ DIVISION: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____ PHONE #: _____

There will be a cancellation charge of \$100 for cancellations received after April 18, 1981
Registrants failing to notify us of cancellations are liable for the entire fee.
Registrations are transferrable.